

Aviation News

McGRAW-HILL PUBLISHING COMPANY, INC.

SEPT. 17, 1945



Douglas' Experimental "Mixmaster": First views of the XB-42, powered by engines located in the tail, driving counter-rotating propellers. This experimental bomber, first in the 400-mph. class, is being studied by company engineers for application of its unusual features to commercial versions of the previously announced Skybus feederliner. (See stories on page 12.)

Lockheed, ALPA Lone Objectors to Stall Rule End

Certification for airline use of war-born transports with excessive landing speed dependent on outcome of CAB hearings.....Page 40

RFC Reverses Sales Policy; Plane Dealers Get Discounts

Prices cut for BT's, PT's and Cessnas as agency ends long criticized ban on "to-the-trade" disposal.....Page 7

Senate 'Port Bill Passage Finds Controversy Continues

Amended McCarran bill places funds under state government control; House opposition believed assured.....Page 9

Research Policies To Shape In Senate Next Month

Present trends point toward overall agency with no segregation of military and naval programs.....Page 24

Foreign Trade Plan Studied As Aircraft Export Shapes

Executives see development of airports abroad, full use of air attachés and purge of German ideas from South America as essential.....Page 11

Non-Schedule Rules Hearing Looms As Opposition Unites

Last-minute rally of protests against CAB examiners' proposal to provide economic regulations seen paving way for oral arguments soon...Page 10

Washington Observer

STOPS
in 1/50 second from 7500 rpm



 **Westinghouse**
Aircraft Products

24400

When actuating gunnery, trim tabs and a dozen other similar functions, motors must operate with precision in starting, rotating and in braking.

Brakes now available on Westinghouse motors assure virtually instantaneous stopping by two brake plates which clamp on a friction disc of special composition the instant the line switch is opened. This brake mechanism is simple and rugged, with a positive action . . . does away with the need for disassembling bushes. Further, the brake is so designed that end-thrust on the bearings is eliminated.

For further information on motors incorporating these brakes and on other aircraft electrical products, aviation engineers are requested to write to Westinghouse Electric Corporation, Lima, Ohio.

DEICE WESTINGHOUSE AIRCRAFT PRODUCTS

Aircraft Motors in a complete range for **De-icing** of a wide variety of aircraft. Operate in temperatures in all conditions of altitude, temperature and humidity.



REQUIREMENTS COMMITTEE—WPB continues plane continuation of the Requirements Committee, which makes overall allocations of materials to the various client agencies, for at least a part of the reconversion period. Inasmuch as the Aircraft Resources Control Office is being disbanded after Sept. 30, the AAF and the Navy Bureau of Aeronautics are asking representation on the committee so that the joint aircraft program will go into that phase of the program, according to present law.



Douglas C-54, showing use of the drag-eye canopy enclosures for pilot and co-pilot and the crew compartment housing. P.W. Waco Major powerplants.

RFC Reverses Sales Policy;
Plane Dealers Get Discounts

Prices cut for BT's, PT's and Cessnas as agency ends long criticized ban on "to-the-trade" disposal; 15 to 20 percent cost reduction set for initial purchase of three planes.

In a reversal of a policy strongly criticized by practically all aircraft manufacturers, the Reconstruction Finance Corporation last week decided to sell surplus primary and basic trainers and Cessnas to aircraft dealers at discounts. At the same time it was announced prices will be cut effective Sept. 17.

Discounts of 25 percent on the purchase of three or more primary or basic trainers, and of 15 percent on the purchase of three or more Cessnas, will be taken off the new prices. Revised prices were being sent to 150 RFC headquarters by sales centers last week.

and the new scale replacing the former \$475-\$42,000 range was expected to be released late in the week.

Dealer Designation—Discounts will be given only on an initial purchase of three planes all at one time. Such a purchase will entitle the buyer as a "dealer," and the discount will be applicable to all future purchases by the individual, whether of one or more planes.

In announcing this complete change of its original ban on "to-the-trade" disposal, RFC stated "this change has been made in order to expedite the disposal of surplus aircraft of these types and to assist private aviation businesses through the recession period."

The plan takes into account the fact that the government cannot provide the distribution and sales organization which would be necessary to reach all prospective purchasers, without enormous expense. This expense is not considered to be justifiable in view of the fact that such an organization already exists among the more liquidated aircraft dealers, air service operators, and others throughout the country who have the facilities and experience necessary to handle the aircraft in the plan," the agency concluded.

The agency approved regulations recommending that the GI Bill of Rights be amended to make it possible for veterans to buy surplus aircraft and to allow for "refurbished" aircraft, that aircraft shall be included under Federal statutes punishing mail theft, as proposed in S.374; passage of the bill for a single administrator of surplus property; disposal that CAB grant a hearing on the future of regulation on non-scheduled aviation.

Followed Talk—The revised policy, says RFC, was "adopted following a number of conferences with members of the aviation industry and others."

The original policy was adopted about March of this year after conferences with the National Aviation Trades Association and other representatives of the industry, and it was pointed out in Aviation News at the time that RFC was uprooting the ready-made distribution set-up of airport



BOEING CHEEF:

William M. Allen, president of Boeing Aircraft, a leader who has been the company's constant expert and ready-shooter since its organization, and now heads the reorganization job.

service operators, dealers and distributors. The Non-Scheduled Flyer.

Advocates of non-scheduled aviation, however, condemned the policy as "arbitrary in concept, unconstitutional in operation and objectionable in its fundamental basis of regarding the government as a business directly competitive with established industry."

While under the revised policy, RFC will still sell on the price-tag basis to individuals, the hope seems to be that the dealers will absorb enough planes to make buying direct from the government unnecessary.

Followed Talk—For their part, dealers are gratified that at last RFC has recognized their existence, but express as great enthusiasm. Some feel it is making "body around. Others wonder if perhaps RFC feels it has skinned the cream off the market.

Since this past April, RFC has sold about 3,700 PT's, 70 BT's, and 400 Cessnas. It has retaining RT's, approximately 3,600 PT's, 8,600 BT's, and more than 3,000 Cessnas.

With some predictions saying

that as many as 5,000 new air-



Aerial Photo of St. Louis Airport: The temporary St. Louis Airport, in Forest Park, viewed from the air, shows extensive portions of the surrounding residential and business districts. The field is being used by Cessna Flying of the Missouri State Department of Resources and Control. Just below the field is an express highway to the downtown area.

demonstration to see the business area airports in operation. It is hoped that the St. Louis experiment may lead to undertaking of similar airports in municipalities such as Chicago, Cleveland, Milwaukee, Dallas, Philadelphia.

Invitations have also been extended to CAA to make studies on new airport equipment in conjunction with the demonstration. While some war-created devices will not yet be ready for civilian demonstration, it is anticipated that many hush-hush "military secret" facilities will be ready for demonstration at the airport.

► Sponsor SHM-31—It is understood that the St. Louis project originally had been sponsored by the national headquarters of NATA. Recently, at a meeting of the national board of directors of Kansas City, it was voted to change the national sponsor, to the local St. Louis NATA airport group, which had been active in arranging the details, to take over complete operation of the demonstration.

Scheduled for a period during which many of the personal plane manufacturers expect to get out their first post-war production planes, the St. Louis demonstration, originally located at it in, may prove to be the largest show of personal planes at one location, that year, as the St. Louis NATA convention was last year.

Army Flying Suit Sales

Civilian flyers who want new Army flying suits, which have been declared surplus, can now get them for \$17—established as a retail selling price.

The ceiling applies to 70 percent

amateurs who hold the view that flying is essential for younger men and women.

Well known, however, is the fact that most of Canada's best known pilots, outside of those on transcontinental and feeder routes, who have participated in the air races in the northland, served in the air forces of the last war, and who volunteered for duty immediately in the opening days of the Second World War.

Seven Small Fields Asked In Cleveland

Private flying facilities would provide full site access to city for businessmen and others.

Seven small, county-owned airports for personal planes, plus a lakefront downtown airport for lakefront landplanes and seaplanes are included in the plan recently recommended for expansion of Cleveland, Ohio, airport facilities.

The plan, presented by the committee on airports of the Cleveland Chamber of Commerce, headed by A. T. Colwell, vice-president of Thompson Aerocraft Products Co., also calls for an east-side airport of 1,500 to 2,000 acres supplementing the present Cleveland municipal airport on the west side, and expansion of the present field to 1,500 acres.

► Lakewood Plan—The report asserts it is possible to construct a medium-size airport on the lakefront along a 14 block span, with 3,000-ft. runways. It is already planned by the city to fill in the lake at this point in order to provide land for another roadway and other purposes. Since the building or sheet piling will be required for the new area, it will be utilized when the lakefront field is built, the report adds.

Although no new regulations have actually been issued, many plans are reported already produced for post-war airports. According to Stewart Graham, assistant director of civil aviation for the Transport Department, new regulations might shape as "a matter of eye accommodation and visual acuity . . . things that happen to the average man's eyeight as he gets older."

► U.S. Reaction—In America, the initial response among civil aviation circles was one of opposition to any rules that might designate that particular age group, long looked upon by officials as one of the most fertile fields for potential personal plane sales and activities.

Source of the Canadian rule considerations is said to be recommendations of RCAF medical ex-

amined that at least two, one on the east side and one on the west side, be constructed as soon as possible. Eventually, it is recommended that at least four of these fields be a lakefront, a downtown, a business, school buildings, etc., while the other three may be less elaborate installations with all-weather fields. The committee has recommended that the Cuyahoga County commissioners buy the land for appropriate sites, possibly obtaining some of it through tax delinquency, and that the fields be leased, when prepared, to private operators, with the county receiving a percentage of the gross income as rental.

Other recommendations of the committee would call for:

- Obtaining federal aid for airport construction where possible.
- Issue of mortgage revenue bonds "as far as possible" to pay for the city and county share of the airport construction.
- Charging "aerators" of the airports the cost of the service rendered plus a reasonable profit.
- Control of all flight operations within the county by one central authority, whether municipal or county.
- Establishment of a central airline terminal in downtown Cleveland.
- Air taxi service, by a private company, to Cleveland municipal airport as soon as proper equipment becomes available.
- Street car service to Cleveland airport, if costs are justified.

Wisconsin Flying Interest 'Complete'

Wisconsin aviation interest, typified by a growing community-owned private flying base at Oconto Falls, has now extended almost every town and city in the state, according to air officials there.

A state-wide survey showed that without reported exception, every city council has considered construction of a community airfield. Although many will continue for years without landing facilities, it is asserted that all are at least striving to make sure such facilities are available "nearly."

► Quick Growth—Less than three months old, the field at Oconto Falls has been built partially through funds provided by the property owner and partly through volunteer labor done by interested citizens. Three runways from 1,000-ft. to 2,000-ft. long, and

800-ft. wide, a barn-type hangar, fueling facilities, and a combined office and club house for the city's Aero Club, have already been provided on the field. Two Cessna tandem trainer and a Fairchild PT-19 are based at the field for flight instruction under the guidance of an AAF veteran.

Among the unusual sources of aviation enthusiasm recognized at the field, is the state's only flying school superintendent, putting the field's planes to use in making long trips to interview prospective teachers.

Private Flight Cost High, Advises AAF

Potential personal plane buyers in the AAF are told in the latest issue of *Air Force*, their official monthly journal, that in addition to the initial cost of their planes it will cost them approximately \$5,000 a mile to fly, or about \$1,300 to fly approximately 3,000 miles in a year.

Staff Sgt. Douglas Ingolia, author of the article "Sky Farmers," advises the Air Force of fees and GIs that for every hour they fly they can expect on spending about \$3 for gas, oil, overheat, and miscellaneous costs and, in addition, they will pay an annual \$100 for storage, depreciation, and insurance.

► Utility Limits—"Don't expect too much of it," the appraisal continues. "Utility is limited, chiefly

because of weather. When there are storms, you won't fly any more unless you have a car out as a rough-in. Fog will ground all planes not equipped with expensive blind flying instruments which will cost as much as the plane itself. If you want to be cross-country, plan on spending at least a couple of nights a week studying up on new rules and regulations and navigation. So what you're really getting, for the time being at least, is a flying machine whose use is comparable to that of a motor boat, good for a short spin or a short cruise if the weather is good."

After surveying the field the writer summarizes:

- "The typical private plane will have a wingspan of about 35-ft. so it can land between parallel telephone poles along almost any highway."
- "It will weigh about 3,000-lbs., will have a 65-75-hp. engine, built so that you can make some minor repairs yourself the same as you do on an automobile. Accommodations will include room for pilot and one passenger with a baggage compartment carrying about 50-lbs. of baggage. In fuel capacity will average about 14 to 16 gallons—enough to take 1,300 to 1,400 miles non-stop. Top speed will be about 110-mph., ceiling about 10,000-ft. but there is no oxygen as standard equipment. It won't have two-way radio, wing slots and flaps or even windshield wipers unless you pay extra."

Time-saving through production



FIRST POST-WAR PRODUCTION AERONCA

Workers at Aerocraft Aircraft Corp.'s Middlebury, Ohio, plant are shown completing the first production plane to roll from the plant's assembly line. The new model, the Aerocraft two-seat Aerocraft, priced at \$12,000. The Aerocraft, with 65-hp. engine, has 110 miles range, and 180-ft. per minute rate of climb.

Briefing For Private Flyers and Non-Scheduled Aviation

quirements. Assured in the project are Lt. Col. Lewis Baker, chief of AAF non-military education unit; W. D. Ford, chief of the Aviation Mechanic Unit; CAA General Inspection; M. Col. Warner Carey, formerly of CAA, now stationed at Lexington-McDonnell, Kansas, N. C., and Capt. R. B. Pickering, Middletonfield (Pa.) Air Technical Service Command.

Overseas Plan—It is hoped that the courses may be offered to personnel in time to permit them to those in the 600 bases in the country. Only AAF stripes and engine mechanics and flight engineers with at least one year's experience are eligible for the training, since the plan is to refresh skilled men, rather than train beginners.

9 Flyers Grounded For CAR Violations

Disregard of Civil Air Regulations resulted in the revocation of six airmen's certificates and the suspension of three others, according to recent CAA reports. Low flying and illegal carrying of passengers was the major wrongdoing.

Summary of the violations and Board penalties:

REVOCATIONS

Frank P. Williams, civilian pilot, for making two solo flights although his certificate had not received the "as incomplete, practice flying" rating. Williams, who was flying with a passenger, and carrying illegal passengers, was grounded for 12 months. He is the victim of Harry Abbott, 2000, 19th Street, Denver, Colo. (406-220-0000, 4101 and 4102). Williams received Harry Abbott's certificate, number 30-1000, on Dec. 10, 1943, and on Dec. 10, 1944, he had less than 1000 hours and in the 100 hours prior to his revocation he had been flying illegal passengers although flying solo. Williams and in the number of six on May 10, 1945, he was grounded for 12 months. CAA, number 11-140, 1945, 1944, 1945, 1946 and 1947. Creditable record.

PHENELLES AIRPORT PLAN—A plan to establish five airports in Hendry County, Florida, in addition to Albert Whitted airport at St. Petersburg for the private pilot, and the Phenelles airport for commercial airlines exclusively, is being advocated by Dr. James E. Murphy, county director of aviation. Under the plan, the Albert Whitted field would be used as a "civilian flying terminal" for the county while the five other smaller fields, would serve as secondary fields, and as bases for private flyers building in their areas.

KANSAS CITY SCHOLARSHIPS—Eleven Kansas City high school boys have just completed a flight scholarship program sponsored by the aviation department of the Chamber of Commerce which gave each of the boys eight hours flight time and ground instruction. The scholarships were awarded to the top-ranking students in aeronautics courses of the public high schools, and similar awards will be made to students in the 1945-46 school year as an incentive for greater interest in aviation among the high school students.

—Alexander McKiernan

First step in reactivation of Howard Aircraft Corp., Chicago, whose "DGA" series of t-6 planes and gliders were among the best performers in the pre-war personnel glider race, is the purchase of the business and principal assets of Electro Motor Corp., Haleson, Wash., according to announcement from Ray T. Haas, president. Haas said management operations at Howard have been at a standstill since early last year. The present management took control of the company in February. The Howard DGA planes were a high-wing monoplane type, modified from Bimota Howard's "Mr. Mulligan" racing plane which turned out some remarkable performances in race meets in the middle 30's.

WRITTEN REPAIR ESTIMATES—Aircraft Owners and Pilots Association is renewing its warning to its members to require a written estimate for any repair work on planes, before the work is started. The association reports it is receiving a number of complaints from pilots that they are being charged three-to-four times the amount given to them for an estimate and the work was started. Investigation of a member of the association reveals "unscrupulous practices" on the part of untrained or unskilled repairmen as the reason of over-estimation. AGFA points out it operates that such practices and the excessive hourly plane rentals and longer rentals charged by many operators currently, are creating "a tremendous surge of ill will." Pilots who are paying the excessive rates are because they have no choice, have long memories. It is predicted that the gauging operations will find their business permanently injured as a result of this short-sighted practices.

BUILD YOUR OWN—A private flyers' airpark now under construction at Albuquerque, N. Mex., will permit flyers to build and own their individual hangars, according to announcement by Lewis W. Graham, William C. Bell, who will operate the field as the Graham-Bell Aviation Service. Their organization incorporated for \$100,000 capital stock, planes, clubhouses, tennis courts, and swimming pool, with a hotel, restaurant, and service station. The Graham-Bell plan is one of privately-owned hangars which might be recommended by many of the planners of post-war airparks. It would be preferable, at least, if the single operator restricted the hangars to one style of architecture and materials, for a more uniform aesthetic effect. But it is likely that plane owners who have made a sizable investment in an airpark would not balk at an additional moderate sum for a hangar, especially when they understood it would free them from the steady drain of monthly hangar rentals.

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Editorial Staff, Aviation News

Walter C. Clark, McAdoo, student pilot, for flying his plane into the ground, was suspended from the University of Southern California, Los Angeles, Calif., June 27, 1945. (UPI)

RESTRICTIONS

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...and it'll be on all-metal SILVAIRE for me when I buy my own!

Fliers who are slapping Japs out of the clouds are not risking their lives in inferior aircraft . . . for nearly every Allied plane in the air today is all-metal.

Experienced pilots know that all-metal construction means greater built-in strength, added durability. All metal planes possess longer service life . . . provide added safety. What's more, streamlined all-metal contours give precious extra miles per hour.

Because all metal construction offers so many advantages look first to Luscombe, builder of the renowned SILVAIRE, pioneer all-metal light plane.

When conditions permit, Luscombe will offer you striking new SILVAIREs — inexpensive to buy, economical and safe to operate, suited to business or pleasure. Send for a free copy of illustrated booklet describing the SILVAIRE, with coupon today.

UNTIL OUR WAR JOB IS FINISHED, we'll concentrate on all-metal construction of vital parts and only aircraft parts for the future. Unless National fighter planes . . . when present production again is increased, surely new SILVAIREs will take to the skies . . . soon four planes that share that earned the name SILVAIRE to fame before the war.

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BY LUSCOMBE

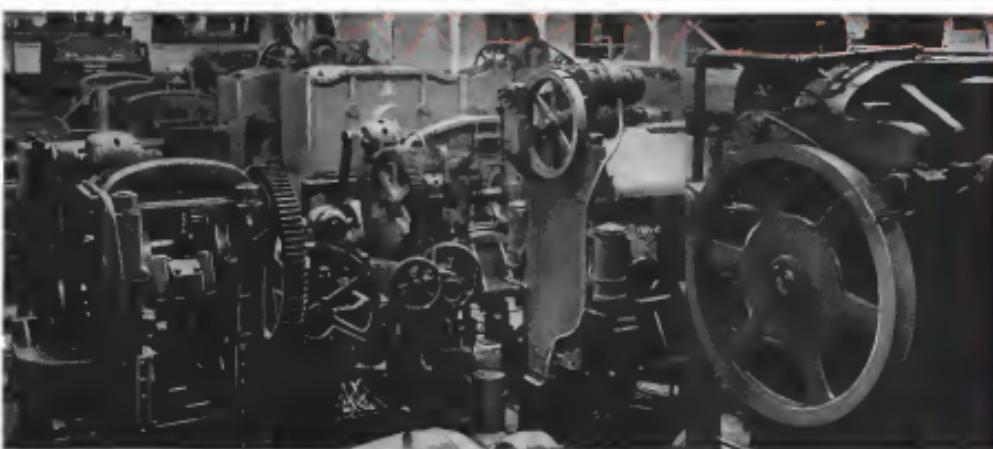
Luscombe Airplane Corporation Dept. J-1, Dallas 8, Texas

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WHETHER reconversion of your plant to peacetime production is sudden or gradual, one of your first chores will have to be the rustproofing and processing of Government-owned machinery, tools and other production equipment scheduled to go into storage. This must be done, with minimum delay, in accordance with Ordnance

Instruction P.S. 300-4.

A stock of suitable Texaco rustproofing products on hand will greatly facilitate your compliance with this requirement, and speed your change-over to civilian production.

Texaco rustproofing products meet Ordnance specifications, and are easily applied by brush, dip or spray. The

protective coating they provide will assure preservation for years.

Whatever your rustproofing requirements, a Texaco representative can render helpful service. Get in touch with the nearest of more than 2300 Texaco distributing plants in the 48 States, or write to The Texas Company, 135 East 42nd Street, New York 17, N.Y.

REMEMBER...

1. Upon termination of war contracts, Government-owned production equipment must be rustproofed promptly, in accordance with official instructions.

2. Ordnance Specification P.S. 300-4 contains official instructions for the complete processing of such equipment.

3. These instructions require that only rustproofing materials meeting Government specifications be used.

4. Texaco rustproofing products meet Ordnance specifications for application on Government-owned equipment.

TUNE IN THE
TEXACO STAR THEATRE
WITH JAMES MELTON
EVERY SUNDAY NIGHT
—CBS



TEXACO

Rustproofing Products

PERSONNEL

Col. Henry Returns As Aide To PCA Head

Lt. Col. James D. Henry (photo) has returned to his duties as assistant to the president of Pennsylvania-Central Airlines. He is only this year, he said, having abandoned the distinction of being decorated twice in one day, receiving the Legion of Merit and citation to the Bronze Star Medal.



The former he received for "meritorious conduct in the performance of outstanding services as Deputy Commander and Chief of Staff, First Air Depot Area, 9th Air Force Service Command." Colonel Henry, who was assistant to Lt. Gen. Lewis H. Brereton, commanding general of the First Allied Airborne Army, is now returned to inactive status.

Robert D. Campbell, another former traffic representative, is now supervisor of maintenance and supplies at the general office in Memphis, Tenn.

Gerald W. Davidson, first employed as station agent #1 in Louis and later as chief traffic dispatcher, has been appointed supervisor of reservation procedures at the Memphis general office.

Joseph A. Daumard, succeeding Davidson, becomes chief traffic dispatcher after serving with the line since 1943 when he was hired as a traffic agent.

L. D. Anderson, veteran C & S pilot and former chief pilot for both flight divisions, is now chief pilot of the Chicago-New Orleans route after creation of two separate flight divisions.

Victor L. Rogosan, former eight captain at the Atlanta station recently, flight superintendent of Ford's Willow Run plant, joins Anderson in the new flight division plan and will act as chief pilot for the Detroit-Baltimore route.

George E. Koeller, St. Louis station manager, has been promoted to the post of assistant to the superintendent of stations. With the line since 1941, Koeller was formerly associated with American Airlines at Lambert Field, St. Louis.

E. W. Radulick, chief of the reservations branch in the aircraft division of the War Production Board until its recent dissolution, is joining the transportation department of Transcontinental & Western Air, Inc., in Chicago.

C & S Staff Promotions Awarded Eight Officials

In a large-scale change of officials, Chicago and Southern Air Lines has announced eight promotions in various flight and traffic offices. They are:

Raymond G. Blair, who joined the C & S traffic department after serving as director of the materials branch for the Dodge Manufacturing Corp. of Milwaukee, Ind., becomes district traffic manager at the Louisville office.

Philip W. Parker, Jr., former traffic representative for the line, has



Chicago and Southern Promotions: Announcements of key personnel changes made last week by Chicago and Southern Air Lines included (left to right) Raymond G. Blair, senior district traffic manager; Philip W. Parker, Jr., new city traffic manager for the line at Shreveport, La.; Gerald W. Davidson, new supervisor of reservations at the company's general office, Memphis; Joseph A. Daumard, appointed chief traffic dispatcher; Victor L. Rogosan, senior divisional chief pilot of the Detroit-Baltimore and George E. Koeller, promoted to assistant to the superintendent of stations.

now been named city traffic manager at Shreveport, La., succeeding Forrest Campbell who left for a post with National Airlines.

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W. Hauser Kelly has been named public relations director for Beech Aircraft Corp., a position which includes direction of the firm's advertising. Prior to joining Beech in the early days of the war, Kelly was associated with Western Lithograph Co. of Wichita, as vice-president, sales manager, and a director of the firm.

W. E. Hall, former Royal Canadian Air Force pilot, has been appointed manager of the western department of United States Aviation Underwear, Inc., and has been named as headquarter at the company's Chicago office. Hall began his insurance career in 1933, subsequently joining the Hartford Accident & Indemnity Co. in Philadelphia.



Grec Serineas (photo) becomes Pan American World Airways' first Atlantic Division advertising manager and will handle all ad work for the division in Europe, Africa, and India. He is a graduate with the news division, will be at La Guardia field, N. Y. Presently in charge of merchandising, copy, and production at the Rochester (N. Y.) Times-Union, Serineas has been connected with advertising and printing enterprises for 15 years. His addition to the line's staff is called the beginning of an expanded program of overseas promotion.

Stan Johnson (photo) has been promoted to the position of director of advertising and public relations publicity for a new Continental Air Lines Personality, under the title of director of public relations. Johnson is the only public relations officer of the airline. Johnson joined Continental Air Lines in September of 1944 from the sales promotion and advertising department of the Goodyear Rubber Co. of Denver. He is a veteran of World War II, having served in the Army Signal Corps.

Walter Green, formerly passenger and cargo manager, has been named general traffic manager of American Express Agency, Inc. Under his recognition, traffic department, being set up to handle the expected increase in trans-Atlantic travel, William Müller has been appointed passenger traffic manager, and Arthur Colod made cargo traffic manager of the airline.

W. Hauser Kelly has been named public relations director for Beech Aircraft Corp., a position which includes direction of the firm's advertising. Prior to joining Beech in the early days of the war, Kelly was associated with Western Lithograph Co. of Wichita, as vice-president, sales manager, and a director of the firm.



The More The Merrier. The more luggage and cargo a transport can carry in its holds, the better the airline is. A Curtiss Wright C-46 transport can haul 10,000 pounds of cargo. The more passengers there are, the more revenue there is. The more revenue there is, the more passengers there are.

"Over the Hump With the Wind and the Rain... in my hair"

Based on a true story taken from the last journal of the Curtiss Company.



"**A Girl Can't Say 'No'**" when she's on her way to cheer up thousands of U. S. who haven't seen an American girl in months. Not even when she's asked to make use of the most dangerous route in the world, the 100,000-foot Hump — with thunderous snowstorms now staging their big show of the year."

"**Smiling Through an Infusion of black storm clouds that reach past at 10,000 miles an hour...** Through such winds of destruction came it was a trip that called for nerve... and it took nerve to fly over the Hump. And it took it. Yet, that wind and rain really paid off on our hearts that there was no turning back."



"**Commando Performance.** As usual, the Commandos come through with flying colors. And so show us on our favorite audience in the world — our battle-worn veterans — the show must go on. And it does. And it's made in those hours in the war for us. As we three laugh and smile with a girl from home."

THAT'S WHY
I WANT TO RIDE
THE AIRLINES THAT WILL

Fly Commando!



Design For Happy Lives. Now flying comfort aboard the Curtiss Commando is sure to delight your passengers. They will relax in the deeper, more comfortable seats. They will sleep in the sleeping bags, and eat in the all-new, more comfortable eating areas, and travel in solid comfort. And they'll enjoy the unobstructed view from bigger windows, both side double seat, when they Fly Commando.

*THE CURTISS
Commando*

Today's Great Warplane
Tomorrow's Great Airplane

Curtiss

Wright
FIRST IN FLIGHT



How To Please A Pilot. Just let him Fly Commando! The cockpit is designed for easy, natural handling. Curtiss has got most of the flying out of the way. And the Curtiss Commando's unique V-tail cuts landing time because the Commando is always in balance, no matter where the engine loads are placed.

H.C.* helps Bennett buy more raw material

*HC means hidden credit (Inventory) and an inventory is a bank loan



1 Bennett had a chance to buy "vargas" materials. And then discovered that this fortunate "buy" was going to practically drain his cash reserve.

2 Luckily, a Lawrence man dropped in. And it was then that Bennett saw an inventory was not a frozen asset, but actually "hidden credit."



3 So Bennett sold warehoused his raw materials through Lawrence System... prepared his warehouse receipts to his banker... and received an inventory loan that more than covered his current needs!

HIDDEN IN YOUR INVENTORY may be **H**all the credit you need for a loan! Whether it is grains or groceries, feeds or fertilizers, Lawrence Warehouse Company can help turn that inventory into working capital.

And the inventory remains right on your premises as raw material; during the pro-

cess of aging or curing, or as finished products, Lawrence simply acts as custodian.

Your banker puts his "ok" on Lawrence field warehousing... for he knows the 30-year record of Lawrence Warehouse Company is helping business men to obtain additional working capital. Send for new booklet giving full details. No obligation.

LAWRENCE WAREHOUSE COMPANY

Field Warehousing FOR BANK LOANS ON INVENTORY



New York, 72 Wall Street • Chicago, 1 M. on LaSalle Street • San Francisco, 12 Brann Street
Los Angeles, W. P. Story Rd. • Buffalo • Atlanta • Cincinnati • Denver • Milwaukee
Kansas City • St. Louis • New Orleans • Indianapolis • Toledo • Duluth • Houston
Baltimore • Seattle • Sacramento • Portland, Oregon



AIR FORCES

COMMENTARY

Ryan Fireball Composite-Engine Uses Turbo-Jet, Reciprocation

Twelve-hundred horsepower Wright Cyclone in nose supplemented by Whittle type GE jet unit in tail to provide short, powerful, takeoff for carrier operation; small output continues for Navy.

Details concerning the Ryan FR-1 Fireball, which has been in production for the Navy for several months and which will continue on a limited basis, indicate for semi-tactical fighters in over-water operations.

Single Fuel — It is well known that turbo-jet units can burn kerosene, fuel oil, etc. but it is also true that with minor alterations in certain components they may use high-octane gasoline. It is natural, therefore, that in the composite-engine airplane the same fuel would be used for both the conventional engine in the nose and the turbo jet in the tail — high-octane gasoline. This is particularly true in the case of carrier fighters in the Pacific, where problems of supply are paramount.

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Heinkel-Hirth Jet Data

The Heinkel-Hirth turbo-jet unit program began in 1936, and up to 1944 there were three experimental units and six production units. The first to be completed was the HE 8/31 and which was installed in the HE-112 reconnaissance and test-flying in August 1938. The HE 8/311 was the outcome of development work on the HE 8/31, begin in 1944. It is a more powerful unit than the BSW 603 or the Jumo 004, and was scheduled to go into quantity production in 1944. It was the power plant of advanced versions of the HE-112, lightweight jet fighter, and certain versions of the Ju-287 jet-propelled heavy bomber.

The HE 8/311 has an impeller at the intake, and a compressor consisting of a diagonal stage and three axial stages. It has an annular combustion chamber with turbine fingers and 16 injection nozzles. The turbine wheel is of the axial 3-stage type, with hollow blades. An adjustable jet nozzle is fitted, having two positions, ready for lifting, and fully for full afterburner. The total static thrust of the HE-112 is 2,800 lbs. The 8/311 was 3.85-in. in diameter, 875-mm. and weight, 2,800-lbs. Fuel used is J-2 high-octane oil, and an emergency K-1 diesel oil. Detailed reports of the unit may be issued by the U. S. Navy in due course.

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NARRATOR

Army Radio Station Flown Into Japan

A complete, high-powered radio station able to furnish ground-to-plane communication, weather information, approach control and communication with Okinawa, was flown into Okinawa and was in use within 45 minutes of the landing the Army has revealed.

All necessary equipment, including jeep on which were mounted control towers, was flown in 12 C-47's. Twelve more C-47's carried 140 officers and men to operate the installations. In command of the landing party was Col. G. A. Paisle, commanding officer of the Pacific Wing of the Army Airways Communication System.

VJ Signal — The 24 planes were loaded in Manila and flew first to Okinawa. They waited until official news came of the surrender terms and then made the 1,000-mile hop to Atsugi airfield, outside Tokyo. The equipment was installed in the planes in 42 hours under the direction of Col. Beeler G. Nichols, commander of the 88th AACB Group.

Sperry Radar Rock

Sperry Gyroscope Co.'s part in the development of radar in this country is now disclosed to have been based on initial research, at government behest during 1938, into ultra-high frequency radiation at higher levels of power that was possible at that time.

Bombing through overcast was one of the first problems met by the company which then went on to predictions of many versions of radar interceptors and gun and searchlight tracking devices. Primary output concerned an automatic search, interception, and tracking devices for ground and airborne fire-power.

PRODUCTION

Government's Research Policies To Shape In Senate Next Month

Present trends point toward overall agency with no separation of military and naval programs; hearings, spurred by President's message, slated to begin Oct. 2.

By WILLIAM KROGER.

Senate hearings slated to begin early next month are expected to give the aircraft industry some time to brief the government's subcommittees on research, with present trends pointing toward an overall agency, and no separation of military and naval research as outlined in some previous proposals.

Following up recommendations in President Truman's message, 16 Congressmen on research bills will start Oct. 2, before a joint subcommittee composed of members of the Senate committee

on military affairs and commerce.

► **Bills Pending**—Before Military Affairs is the Kilgore-Pepper-Johnson bill for a National Science Foundation, and before the Commerce Committee are the bills of Sen. Warren G. Magnuson (D-Wash.) for a National Research Foundation (Aeronautics Naval, July 30), and Sen. J. William Fulbright (D-Ark.) for a Bureau of Scientific Research in the Commerce Department.

Such a joint subcommittee is an innovation in itself, but the fact

Experiments

More than a score of experimental military aircraft are in various stages of construction in Southern California factories. John C. Lee, president of Southern Manufacturing Co., has informed the Los Angeles Chamber of Commerce aviation committee, of which he is chairman.

Lee was optimistic over the post-war prospects of the entire West Coast aircraft industry, but could not assess the value of more than one billion dollars worth of military and civilian orders after VJ celebrations.

► **Future Focus**—He anticipated, however, that Southern California's future as a center of aircraft construction will depend upon the responsible use of plane designs and standards—sound governmental policies on surplus disposals—continued experimental development by private companies—commercial support.

The President's Plan

Following are excerpts from President Truman's message to Congress. It contains recommendations on government-sponsored research programs as taken from his recent message to Congress:

No nation can maintain a position of leadership in the world of today without a strong program that tells its scientific and technological resources. No government adequately meets its responsibilities unless it generously and intelligently supports and encourages the work of science in universities, industry, and in its own laboratories.

During the war we have learned much about the methods of organizing science, and about the ways of encouraging and supporting its activities.

In order to derive the full profit in the postwar from what we have learned, I urge upon the Congress the early adoption of legislation for the establishment of a single Federal research agency which would discharge the following functions:

1. Promote and support fundamental research and development projects in all matters pertaining to the defense and security of the Nation.

2. Promote and support re-

search in the social sciences.

3. Promote and support research in medicine, public health, and allied fields.

4. Provide financial assistance in the form of scholarships and grants for young men and women of proved merit.

5. Conduct and control various scientific activities now conducted by the several departments and agencies of the Federal Government.

Major efforts, truly, and probably available to commerce, industry, agriculture, and academic institutions, the fruits of research financed by Federal funds.

Scientific knowledge and scientific research are a complex and interrelated structure. Technological advances and social may bring about significant, but other apparently unrelated. Accordingly, I urge upon the Congress the desirability of centralizing these functions in a single Senate committee.

Although science can be coordinated, it should not be dictated to or segregated. Science cannot program unless founded on the free intelligence of the scientist. I stress the fact that the Federal research agency here proposed should in no way impair that freedom.

5. Promote and support re-

search in the basic sciences.

6. Promote and support research in medicine, public health, and allied fields.

7. Promote and support research in the social sciences.

8. Promote and support research in the field of agriculture.

9. Promote and support research in the field of industry.

10. Promote and support research in the field of commerce.

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“Even if I reported this, the CO wouldn't believe it!”

So many new aviation ideas have been hatched during wartime that it is easy for the general public to slip into the belief that major aviation progress is possible only during war.

Nothing could be further from the truth. Most developments hatched as wartime discoveries were in practical use long before the beginning of hostilities. The need of war served only to spur their production. Furthermore, the emphasis on military aviation has tended to distract the development of commercial private aircraft. This lag must be made up by strengthening research programs, rather than their abandonment.

For example, engines need to be developed to realize the full potential of future aviation fuels from both performance and economy standpoints. Aviation gasoline has already trans-

formed its "octane" of 100 octane. New refining methods and the use of Ethyl fuel have provided new fuels so high in anti-knock quality that some aircraft other than the "octane" fuels will be required to express their ratings.

Post-war research workers, unhampered by the specialized requirements of military planes and fuels, may well make the years after the war the truly great era of aviation progress.

Ethyl Corporation



Manufacturers of Ethyl fuel, and of compounds to improve the anti-knock quality of aviation and motor gasoline.

We are Signally honored.....

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RED CROSS

.....DOUGLAS AIRCRAFT COMPANY
names GRAND CENTRAL AIRPORT CO. as
"Authorized Conversion and Overhaul Center"

GRAND CENTRAL AIRPORT....NOW GIVING NEW SERVICE TO THE AIRCRAFT INDUSTRY



AIRLINE CONVERSION

Grand Central Airport Company is one of four hand-picked, prominent and long-established firms of top technical standing in America, selected by Douglas Aircraft Company to do airline conversion on Douglas Aircraft. Selected on the basis of "a long standing and enviable reputation in the aircraft industry," Grand Central Airport Company's experience in overhaul and repair plus quality interior work is proving invaluable on the DC-3 conversion line.

We have already completed our first reconversion job and more will be off the line shortly. We have also been doing, for some time, this same work for the U. S. Navy on Lockheed's as well as Douglas aircraft.

Operating an approved C.A.A. repair station since 1929, we are in the fortunate position of having an extremely large group of highly skilled personnel, many with more than 10 years of experience with our company. We have experience—**THERE IS NO SUBSTITUTE FOR IT**

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Automatic Trim Tab: The new Curtiss-Wright "V-Tail" control surface, indicated by Harvey Gray, test pilot, is being looked to as a great simplification measure in postwar airline flight operations. According to reports of initial tests, the tail streamlines the aerodynamics of continually shifting cargo and control surface adjustments as freight or passenger load is changed at various stops. The tab, fully automatic, is set at the initial loading and thereafter makes balance adjustments as the load and center of gravity changes.

visions that any patents among them Federally-financed research be made available without cost to all comers, on a non-exclusive basis.

Free Access.—An subsection that the bill as finally adopted by committee will contain the reference to patents is the President's recommendation that the fruits of research be made "fully and freely available."

While it seems that armed forces research will not be included in the program, it is already proceeding in under both the Marquand and the Kefauver-Pepper-Johnson bills. Additionally, the Air Forces panel will submit recommendations later to implement a half-formulated plan for taking into the AAF direct from colleges promising scientific workers.

New Oil Line

Assuming a higher margin of safety and anticipating any designed increases in pressure or temperature ranges for Army and Navy aircraft engine lubrication and cooling lines, the United States Rubber Co. has announced development of a new synthetic rubber hose built for high pressure and heat.

According to the company, resistance to pressure as a one-inch diameter hose covered with "Ustex" chemically treated cotton yarn and shaped of the new heat resistant synthetic rubber, is double that of usual hoses. In use as an oil line, the hose will with-

stand up to 250 degrees F. and up to 300 degrees F. for installations in cooling systems.

Automatic Trimmer Handles 'CG' Shifts

A new trim tab device for transport airplanes has been developed by Curtiss-Wright to permit maximum loading of aircraft without consideration of weight distribution.

The new device is now being used on the C-46 Commando and, while it adds 10 pounds to the total weight, has resulted on an improved stability and a wide center of gravity range.

CW-20 Delivery.—The company reports that delivery of the CW-20 experimental helicopter will begin soon after the first of the year.

Curtiss-Wright engineers report that maximum utilization of cargo and passenger space is the greatest boon of the new Curtiss V-Tail, which does not affect the airplane's speed and which operates automatically.

The company claims that use of the tab makes center of gravity a minor problem, that pilots do not have to trim ship while passengers walk back and forth in the cabin and that airline maintenance men will have to be concerned only with the total load of passengers and cargo, rather than figuring distribution of weight. In addition, the company asserts, it is not necessary to shift cargo from one compartment to another. Once the

Inventory Retention Eased By Services

To encourage war contractors to retain for their own use inventories remaining upon cancellation, the War and Navy Departments have announced changes in the post-termination regulation. The revisions are also designed to tighten up the sales of termination inventories.

The floor under the price the contractor must pay to retain the inventories has been removed. Formerly, he had to pay the "best price obtainable," but are less than 15 percent of cost. The buyer restriction has now been removed. The contractor must warrant, however, that he intends to use the material in his plant and will not sell it. Price remains subject to government approval.

Strap Control.—To control the sale of scrap, salvage and other unseverable items in the termination inventory, the regulation provides that such sales must be on a "no profit" basis, with the government approving the price.

If a contractor desires to sell unseverable property, he must advertise it in a local newspaper for seven days in advance. Price must not be lower than 25 percent of cost, and the government must again approve.

Those three requirements pertaining to termination claims of more than \$10,000. Provisions for the disposal of small lots of termination inventory have been simplified, but the amount a contractor may dispose of without government approval being lowered from \$3,000 to \$300.

Fire-Resisting Hose

A special aircraft fuel hose capable of withstanding intense heat for at least 30 minutes has been developed by the Air Technical Services Command as a result of experiments on fire hazards in aircraft. Ordinary hoses are resistant to great heat for only about three minutes.

ATSC's goal in the tests is to perfect equipment forward of the fire wall, and in engine nacelles that will result long enough for the fire to be extinguished before it can spread and cause an explosion.



With twin 3-bladed rotors intersecting like the blades of an egg beater, the Bell Helicopter XR-8 presents a new and novel design in helicopters. A purely experimental model built for the Army Air Forces, the XR-8 has the advantages of greater power efficiency, reduction of vibration, reduced drag, and reduced power transmission requirements.

Reports from test pilots indicate that it is highly maneuverable, and since the rotors revolve in opposite directions, there is no need for a tail rotor to counteract torque. While no performance figures have been released, the ship is powered by a Franklin air-cooled 245 h.p. engine using CECO fuel pumps.

Chandler-Evans is proud to have a small part in this new step in helicopter development. And as Chandler-Evans has always kept abreast of the newest and latest in America's other great war planes, so will it continue to serve the aviation industry when once again it turns to peacetime production.

The Bell Helicopter XR-8 has all the remarkable helicopter characteristics of vertical rise and descent, stability in hover, and its fly backwards and roll over as well as fly forward.



CECO
CARBURETORS
FUEL PUMPS
PROTEK-PLUGS



CHANDLER-EVANS CORPORATION

AVIATION NEWS • September 17, 1945

Bell Output Plans Center On 'Copters

Concentration on production of commercial helicopters has been revealed as Bell Aircraft Corp.'s main objective in the peacetime aircraft industry.

With discontinuance of B-26 production at Marietta, Ga., and a reduction in RF-83 output at Buffalo, the company has begun negotiations to acquire the government-owned Niagara Falls plant for its helicopter work.

Four Models—"Our company is going into helicopter production on a big scale," President Lawrence D. Bell says. "We have developed four different models in the past few years. The helicopter will have great value to the military and also will be of utility to the ordinary man."

"In from seven to 15 years, there will be a helicopter industry

greater than the peacetime aircraft business."

Bell does not expect the helicopter to compete with the automobile or the airplane.

"It is a short-range utility machine," he explains, "operating at ranges unsatisfactory for the plane and too long for the auto. I believe the helicopter represents a brand new method of transportation, operating from door to door, you might say, both in heavily built-up and less populated areas."

Goodyear War Output Rose Above Half-Billion

Goodyear Aircraft, as a review of wartime production, reports an output of nearly \$786,000,000 worth of transports, aircrafts and components parts.

Officials said that in the period from October, 1943, to VJ Day, its workers, reaching a peak of 32,666,

turned out more than 4,000 complete P-51 Corsair fighter planes; well over 150 complete K and M type transports and thousands of sets and parts for more than 30 types of airplanes. Plane sets included 15,722 elevators, 32,663 fins, 12,796 rudders; 15,588 stabilizers, 9,631 ailerons; 14,535 outboard flaps, 15,655 inboard flaps, and 5,626 wings. In addition, 681 fuselages and thousands of spare parts also were completed.

Other Planes—Contracts other than for the Corsair and transports, included those of the Boeing B-52, Northrop P-61, Lockheed's P-38 and P-70, Vought's Guardians, the Avenger, and PBY Catalina, Martin B-26 Marauder and PBM Mariner, Consolidated B-34 and PB4Y Coronado and the Curtiss P-40. The company started with only 46 employees when it took its first war contract, in December, 1939.



Five Air Firms List Sales Data

Five aircraft manufacturers companies were included in the 33 corporations reporting their total sales, the relationship of war contracts to such sales, and the amount of aircrafts and war contracts at their books at the end of various fiscal periods, to the Securities and Exchange Commission.

Total sales for all 33 companies for the various periods covered amounted to \$1,495,386,000, of which \$1,036,600,000, or 71 percent, were war contracts. War contracts unfilled at the end of the periods aggregated \$19,798,388,000.

C-W—The figures include sales by the Wright Aeronautical Corp., which was merged with the consolidated statement reported by Curtiss-Wright Corp., to be "parent."

Reporting for the period from April 1, 1943, to June 30, 1945, Curtiss-Wright showed total sales of \$1,036,600,000, of which \$930,000 represented war contracts. At the beginning of the period the company had a total of \$12,074,960,000 of war contracts on its books, of which \$1,500,000,000 were unfilled at the end of the period.

Beech Aircraft Co., Inc., reporting for the period from Dec. 1, 1944, to May 31, 1945, showed total sales of \$480,048,000, of which \$449,000 represented war contracts. At the beginning of the period the company had an estimated \$12,000,000 of war orders, and had no books on July 31, an estimated \$78,300,000 of such business.

Pratt Alexander Corp., reporting for the period from Dec. 1, 1944, to June 30, 1945, showed total sales of \$45,361,000, all of which were war contracts. At the beginning of the period the company had an estimated \$12,000,000 of war orders, and had no books on July 31, an estimated \$78,300,000 of such business.

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The manufacturers, he asserted, are taking advantage of rapid development in aeronautical science in civil air transports the British are building. "It may prove that 'marking time' may not be altogether to our disadvantage," he concluded.

Aeroprops for Extra Service Smiles

This General Motors Propeller Is Engineered for Easy Maintenance

THIS WAR has proved that easy maintenance is a "must" in any aircraft part. That's one of many reasons why the Aeroprop will be needed, "not only to produce still better combat aircraft but also better transports, aircraft and better private planes."

Post-War—He predicted help from the British government plan for an aeronautical research center and provision of new and better research equipment to individual companies.

Major H. R. Kilner, deputy-president of the SBAC, aviation specialist at the opening of a London exhibition of paintings of British aircraft, asserted that the British plane building industry is convinced that it can produce aircraft "as reliable, and with a performance as high, as anything which can be produced by our competitors."

The manufacturers, he asserted, are taking advantage of rapid development in aeronautical science in civil air transports the British are building. "It may prove that 'marking time' may not be altogether to our disadvantage," he concluded.

and replaced in a matter of minutes. In war, that means fewer hours wasted on the ground. In peace, Aeroprop simplicity will help to shorten maintenance time and contribute to the economy, efficiency, and reliability of commercial flying.

The Aeroprop is remarkably clean and simple in design. It can be inspected and serviced in record time. A single blade, or the complete propeller, can be removed

ing public when the achievements of America's aircraft and accessory industries are converted to planes of peace.



Jumping Advantages—Lightness for rapid take-off and landing, simplicity for easy service...Power Automatic Pitch Change for high efficiency...Ball Bearing for engine protection...Engineered for reliability.

Aeroprop

LIGHT • STRONG • EQUAL

AEROPRODUCTS DIVISION • GENERAL MOTORS CORPORATION • DAYTON, OHIO

Keep them flying—Buy Aeroprop War Bonds!

The Birdmen's Perch

By Major Al Williams, ALIAS, "TATTERED WING TIPS,"
Gulf Aviation Products Manager, Gulf Bldg., Pittsburgh 30, Pa.

Well, they did it! And knocked 354
lbs. off the great weight!
How about that?

INSTRUMENT COURSE, Cont.

As we were saying last month, these old
statements of yours are crucial judges.

Can we tell all about what we do to
Gullpapa Old? We can tell you how we
begin with a very simple and
straightforward to the most efficient reading
methods we know of. We can tell you
that when you've been refined we give
them up, even refining measurement called
the "Alkaide Process."

And we can tell you that last year you
spent over carbon cutters and shaper
forces out of Gullpapa than you could
stand a person at.

But while we can tell you what we do
to Gullpapa, we can't tell you what your
aeroplane does to it! That's up to your old
instructor.

Your oil pressure gauge, for instance, is
probably indicating one of the following
when it reads too high:



Now, month, we'll cover indications of
the oil temperature gauge. Meanwhile, you is
have enough time to test your engine to
test Gullpapa...

—hey, maybe we ought to fill 'em
with helium instead of air, see how it

FLUTTER SAYS

A pilot arrived in Malibu
Before he had left when he'd been,
Intermission, he admitted
He couldn't have did it
like he's had a Gulf Gasoline.

LITTLE KNOWN FACTS DEPT.

Here's the 3rd Little Known Fact About
Well Known Planes we've got
Grape Clap, of Dallas, Texas!

The plane that with 2 nose
facturing enough to meet our lofty
aspirations, and accompanied with perf-
Perch Pilot George Clay will become a
Singer Perch Pilot.

What a nose, he'll be the first Singer
Perch Pilot to be conversational!

Unless someone else born him to it,
due to Hootie his 3rd adopted Little
Known Fact.



The most popular light plane is
suggested for max "GV"—gross for
pound—than any commercial aircraft!

A commission is on the way to H. E.
Krause, AMMH Inc., 1440 N. Sohn 9-2,
c/o Elec Post Office, New York, N. Y.,
for...

Just the waiting on a P-51 is more imp-
pressive than most P-51's!

Li. W. M. Bullock, LAAF, Laredo,
Texas, has a commission with:

At requires approximately 6 hours
to install the landing gear of the

If you haven't got a Perch Pilot's com-
mission yet, send us a little known fact
like those above.

If you have been commissioned, and
4 name Perch and we'll promote you to
Senior Perch Pilot!

The address is up on top of the page,
there.

**GULF OIL Corporation and Gulf
Refining Company...makers of**

GULF
**AVIATION
PRODUCTS**

OIL IS AMMUNITION—USE IT ITSELF

B-25 Airliners

The modification of five
B-25 Mitchell bombers into
fast transports for high-ranking
military personnel, by
North American Aviation, has
aroused considerable interest
in respect to the commercial
utilization of surplus military
aircraft.

The modification consists
solely of changes in the interior
of the aircraft. A standard
Mitsubishi is stripped of all
armament, crew bunks, and
unnecessary military equipment.
In their place are installed
a nose section which
contains all radio equipment,
heating and ventilation apparatus;
sound-proofing, double
windows and furnishings;
bunks, lavatories, lavatory,
steering, compasses, and
passenger seats.

P-51 Seats.—The resulting
transport will carry six passengers
with a crew of two.
Range is approximately 2,300
miles at a speed of 300 mph
at 10,000 ft. with passengers
and crew plus 500 lbs. of baggage,
the airplane weighs 28,200 lbs.

One of the main points in
favor of the conversion is a
reduced maintenance and
supply problem. The transport
uses standard B-25 parts which
are in abundant supply.

Continuous Flow Fuel System Set For Army

A continuous flow fuel system,
replacing fuel tank selector valves,
will be installed in all military aircraft,
according to Air Technical
Service Command.

The new system, developed at
Wright Field by ATSC engineers,
is said to eliminate practically all
chances of accidents arising from
the older method of manually
switching from one tank to another.

Flow Valve—Based on a simple
arrangement of fuel lines and the
use of a float-operated valve, the
system provides a continuous flow
of fuel without change in pressure.

Formerly, a pilot had to switch
a fuel tank selector valve to the
main tanks at takeoff, then change
over to auxiliary tanks during
flight and, when those were empty,
switch back to main tanks. This
procedure allowed a great chance
for human error. The ATSC de-
velopment, being fully automatic,
does not require operation by the
pilot.

Scott

MASTER CYLINDERS

MODELS
4000
and
4100

SPECIFY AS



Here the vertical position in which
the Scott Master Cylinder becomes
the back bone of the parallelogram
steering, or practically applied on
platforms and vehicles.

• Designers and engineers welcome the patented Scott Master Cylinder, a highly efficient pressure generating device for use with motorized hydraulic brake systems. Available in two sizes with displacements of .38 cubic inch and 1.3 cubic inch, built for pressures up to 1200 lbs., with design operating pressure of 450 lbs. when installed as illustrated. Adjustable in length, both ends are interchangeable. No internal valves or small ports to score slides. Requires no bottom—out external. Easy to bleed. Throughout, dependable Scott quality-built products—one which you can "specify as Standard" with complete confidence.

Scott
AVIATION CORPORATION

504 ERIE STREET
LANCASTER
NEW YORK

They'll feel they're going really modern



TODAY'S PASSENGERS are travel-eager — tomorrow's will be travel-wise. Gain and maintain travel leadership by giving them more beauty, more comfort. It's easy, it's profitable with Firestone's amazing materials, *Foamex* cushioning covered with *Velon* upholstery fabric.

Together they are the perfect seating combination—deep-cushioned comfort, high eye-appeal — both so practical that maintenance cost is brought down to almost zero.

Consider the glamour of interior of *Velon*. In any color, from palest pastel to deepest jewel tones, in a wide range of patterns, textures and weaves, *Velon* fabric stays ever new, fresh and beautiful. Dirt and grease cannot cling to its one-ply threads, nor can acids and alkalis stain it, so *Velon* stays clean longer. A cloth damped in water or cleaning fluid restores its original beauty. As seat covering, curtains, wall lining, shades and trim, *Velon* can be exposed to the brusling sun's rays without fading or becoming over-heated. It is perfectly flexible, yet cannot sag, buckle or "grow" out of shape, so resistant to abrasion that it does not snag or scuff.

Consider the comfort of *Foamex* cushioning. Millions of tiny an-cord-bubbles float the passenger in blissful relaxation. Each bubble is a perfect shock absorber, an air-breathing ventilator, an air-valve yielding gently to slightest pressure, resilient under heaviest weight. *Foamex* replaces old-style springs and stuffing with one welded-together material, sag-free, lump-free. Both *Foamex* and *Velon* have proved themselves in transportation service through years of wartime abuse. *Foamex* is now electronically processed to ensure even longer wear.

The demand for *Foamex* to cushion men against shocks of battle has been satisfied. The need for *Velon* to protect them in steaming tropics has been filled. Now *Foamex* and *Velon* will be available to you, to attract passengers with beauty and comfort, to keep your maintenance costs way down. Start specifying this revolutionary seating combination. Write Firestone, Akron.



Firestone

© 1945 Firestone

AIRBORNE DEHYDRATING EQUIPMENT

This D-10 Dehydrator Unit for the B-29 Bomber is just another practical application of the Russell R. Gannon System for the control of moisture content, relative humidity, and dew point of air and gases.

This unit, including its dehydrating cartridge weights but four pounds and has a moisture pick up capacity of 50 grams of water while maintaining a dew point of 95° F below zero.

The Gannon System is applicable to many other

dehydrating problems, and usually eliminates expensive and cumbersome installations.

The dehydrating chemicals are so inexpensive to replace as to be expendable of a negligible cost.

Precise read dew point color change indicators are available to insure accuracy of working conditions.

If you have a dehydrating problem, consult Gannon. Gannon's Engineers welcome your inquiry.



Russell R
GANNON
CONDITIONING EQUIPMENT
Cincinnati 2 • Ohio



approximately 250 communities have no communication.

Pointing to the exorbitant construction costs which will prohibit for some time the opening of extensive roads, highways, telephone lines, and year around plane service to hundreds of isolated communities, the Commission emphasizes the necessity of uniting these communities together with a flexible, inexpensive and reliable radio telephone communications system. The Commission is endeavoring to secure 100 additional complete stations to install in various isolated communities.

FINANCIAL

Alaskan Air Operations Report Gains International Significance

Territory's position as a hub of great circle operations sheds new light on Aeronautics and Communications Commission yearly survey; commercial records increase; private flying boom predicted.

With post-war planning placing Alaska as a hub of world aviation operations, the report of the Supervisor of the Alaska Aeronautics and Communications Commission on aircraft operations during the past June 30 fiscal year takes on more significance than in previous years.

The great circle routes to Manchuria, Hong Kong, Cakutta, Bombay and Tokyo are by way of Alaska. But, in addition to expansion of commercial air transportation facilities, the Alaska Commission points out in its report, that technical developments predict a large volume of post-war private flying. "We have every reason to expect an aeronautical future for Alaska," says the department's report.

Flight Miles—Miles flown in the territory during the year ended June 30, 1945, were 24 percent above the previous fiscal year, being 4,904,381 as compared with 4,015,034. In 1945, miles flown were only 3,944,933.

Passenger miles down during the period under survey reached 18,047,039, an increase of 81 percent over the 12,885,139 reported

in the 12 months ended June 30, 1944. In the 1945 period, passenger miles flown were 10,134,669.

Pounds of freight flown into the territory were up 13 percent to 1,886,976. In the year ended June 30, 1945, pounds of freight totaled 2,842,088, an increase of 6 percent over the 2,677,187 pounds the year before.

Postal Dept.—Mail flown in, however, fell off 7 percent to 602,364 pounds. The 1944 fiscal year total of 602,981 pounds was 37 percent below the 1,546,982 pounds flown in the year previous.

The accompanying table presents Alaskan aircraft operations on a yearly basis since 1938:

There are only 500 miles of railroads and 3,032 miles of vehicular roads to serve an area of approximately 480,000 square miles, making air transportation the most logical solution for the lack of other methods of travel. Planes operate to and from communities that have no other communication with the outside world other than occasional road during the summer months. Only 230 communities have post offices. Ap-

Canadian Helicopter Production Begun

Engineering Products, Ltd., Montreal, has started production of the Sineray and Goliath helicopter, SG Mark I, a three-passenger model designed for volume production.

It is reported the first model may cost about \$80,000 after which production costs will decrease. The craft will have a top speed of 110 mph., a range of 150 miles at 80 mph. and a payload of 1,000 lbs.

Sineray—An international organization is sponsoring the production of the helicopter at Montreal, members including J. E. Sargent of Savard Hodges & Co., Montreal; Capt. Norman Edgar, of Western Airways Ltd., England; H. J. Curtis, Provincial Transport Co., Montreal and Bernard Sinner, New York aeronautical engineer.

Lightplane Hydraulic Unit Built By Adel

A new hydraulic power package has been developed by Adel Precision Products Co., Burbank, Calif., to provide a compact, light weight source of power for assistance of landing gear and wing flaps in light airplanes.

The package, adaptable to aircraft size, consists of an electric gear type fluid pump, visual reservoir, adjustable pressure relief valve, thermal relief valve, a cylinder by-pass valve and four-way selector valve connected to manual control. Overall size is four inches diameter, nine and 1/8 inches high. Weight, filled, is 4,475 pounds, empty 4,400 pounds. Four fittings are required to connect.

ALASKAN AIRCRAFT OPERATIONS

Year Ended June 30.	Miles	Passenger Miles	Freight	Mail
1940	308,422	604,340	35,943	12,604
1941	332,264	947,495	161,718*	
1942	742,554	845,276	496,650*	
1943	1,059,115	1,255,510	634,816	
1944	1,125,125	1,252,311	732,000	351,077
1945	4,904,381	18,047,039	2,842,088	207,730
1946	2,850,604	5,148,802	1,498,817	222,849
1947	2,130,359	2,865,318	2,138,866	222,849
1948	2,369,209	4,622,706	2,647,728	264,261
1949	2,370,400	4,622,706	2,647,728	264,261
1950	3,247,040	5,801,252	3,616,530	264,374
1951	3,338,790	5,810,304	4,311,650	264,374
1952	4,474,004	7,813,264	4,947,516	611,429
1953	4,000,500	11,300,700	5,500,000	890,000
1954	3,881,094	10,079,395	5,117,700	1,004,917
1955	6,011,314	12,665,256	5,648,360	952,000
1956	4,366,321	15,847,039	3,908,378	112,000

*Mail and freight combined.

WITH THE ARMED FORCES Everywhere..



Somewhere in the Pacific

... You know I've never been any place yet where they had a Beechcraft. I mean, I don't believe I'll ever see the place that doesn't have them. ... R.B.S., Army 3/c

Oahu, Hawaiian Islands

... Get quite a thrill whenever I see a Beechcraft. I mean, I don't care where. What's out there not being used and not an opportunity is set there operate. ... C.M.T., AFM 3/c

Comments: ... I have seen several Beechcrafts in my trip and they looked plenty nice. ... E.Y., Cpl

Philippines Islands

Talked with some Air Corps boys, and I wasn't surprised when they told me that the Beechcraft is the most popular plane they've ever ridden in. Guess that's why the generals use them. ... V.K., Sgt

Comments:

I have seen Beechcrafts, from one to a dozen, in any place I've been, and we have them everywhere. ... We have really done a swell job. A few days back, I was in the off Corregidor when I saw, in one of them. He says an angel will never land, say better to him than a Beechcraft. ... R.L.B., P-7/c

Comments: ... The one thing I want to do is to repair a Beechcraft. I mean, I probably never happen as the plane is in use at a good shop. ... B.J.S., Pfc

Two Areas

... There's a lot of islands because here and in Wichita, and on every one I haven't seen one among a Beechcraft. ... B.G., 3/cpt

... and everything has been in perfect agreement with the Beechcraft in quality and performance. ... J.R.B., 1/cpt

Myself, Beech: ... A batch of nose over base is a former Beechcraft AT-12 pilot for bombardier training. He's been flying the AT-12s and also the T-6s and I might say that they are the easiest and easiest handling plane the Air Corps have. ... W.M.B.

Admiralty Islands: ... Beech pictures of Beech planes around the globe remind me to inform you that even when I have a Beechcraft, I don't fly it part and part, and for duty one can see on the line DC-3s and even C-45s. ... I think it's a good word for the plane. ... E.T.A., Lt. Capt

In the Affection: ... We realize where I go you will see a Beech and we have been in some rather remote spots. ... I mean, I've been in the hills, but every one stops to see a Beech take off at land. ... P.W.W., AFM 2/c

Overseas: ... Once here I've seen a Beechcraft in every building. They are known as the favorite of generals. Reliable enough for general use, and the only one that has the choice like they pick them you know the plane is good. ... R.D.M., Cpl

During the war Beechcraft received thousands of letters from members of our armed forces in training camps and on battle fronts everywhere. The following excerpts gleaned from just a handful of these letters are eloquent testimony of how well Beechcraft did their part in the war. The same good opinion of Beechcraft held now by service men and women will be earned also by Beechcraft's new postwar models.

Panama, Central America: ... I have been in several places. ... One of the areas I've been in is good and bad Beechcrafts every place. ... J.W.D., Col

Florida: ... The general of the corps in Florida where I am stationed is a Beech AT-12 which makes me自豪 for Beechcrafts much more. ... I think I have Beechcrafts doing their part and soon Beechcrafts are working every day at around the world. ... G.R., Lt

France: ... I saw an AT-12 Beechcraft in the other day. ... I have been pleased with many favorable comments of flight from the other planes in the corps. ... I mean to be a characteristic of most of these goodness is that flight with any and all kinds of weather. ... I mean it's not a cockpit but good in any type of weather. ... E.H.C., AFM 2/cpt

Comments: ... Once here I've seen a Beechcraft in every building. They are known as the favorite of generals. Reliable enough for general use, and the only one that has the choice like they pick them you know the plane is good. ... R.D.M., Cpl

Expect Early Decision By AA On Five Proposed Planes

Boeing, Consolidated, Curtis-Wright, Martin and Douglas offerings are submitted to airline employees for opinion.

By MARTIN V. MERRITT

An early selection by American Airlines of the plane it will order for short-range flights to supplement its fleet of DC-4s and DC-5s is seen in a message to American employees which asks their opinion of the planes under consideration.

The airline has prepared a brochure which describes the five planes and which bids have been submitted and asks employees to indicate in a poll which would be their choice, setting an early deadline "since the competitor is encroaching to notify the successful bidder at the earliest possible moment."

American Airlines recently asked plane manufacturers to submit proposals as specifications drawn up by the airline (Aviation News, August 13, p. 47). The new planes, intended for use in 1947, call for seating approximately 30 passengers, 375 miles as hour cruising speed, tricycle landing gear, larger cabin windows, bigger passenger door and several other details. The airline, according to its announcement, plans to use DC-4s and DC-5s on long distance flights and between points of heavy traffic density and use the newly designed plane for short-range flights.

Five Planes: ... Five manufacturers submitted bids and plane Boeing, Model 411-18; Consolidated, Model 318; Curtis-Wright, Model CW-26; Douglas, DC-4; Martin, Model 202.

Essential features common to the five planes indicate a trend toward increased payload without increased operating cost and to facilities that will permit quicker operation at landing, such as baggage racks within the cabin, quicker refueling, and more rapid loading and unloading.

Asked why the opinion of every employee of the airline was solicited in the selection of the new

seemed all right in the blueprint. Magic may prove to be a bug which a sweep agent could have detected beforehand. In the same way, a reservations or ticket girl may bring about a change in design. We feel that everyone in the American organization has a stake in the new planes and should be given a chance to participate in their selection."

Delta Airliner Needs Shift To Larger Types

Although Delta Air Lines plans to use Douglas DC-3s when it starts its new Chicago-Miami route later this year, studies are being made now to determine what larger equipment may be best suited to the operation later.

Under consideration are Lockheed's 86-passenger Constellation,



Two of the planes being considered by AA. Above, the Boeing 411-18, and below, the Curtis-Wright CW-26. Drawings of the DC-5 appear on page 12 of this issue. Drawings of the Martin 202 and the Consolidated 318 have been published previously (See comparative table of specifications on the following page.)

Beech Aircraft

CORPORATION
WICHITA, KANSAS, U.S.A.

BEECHCRAFTS DID THEIR PART

Douglas' 44-passenger DC-4 and 52-passenger DC-4, and Curtiss-Wright's 36-passenger CW-20. The line anticipates a "substantial increase" in its fleet, now consisting of 12 DC-3's of which three are being converted, for the new operation. A conversion line will be set up in Atlanta to modify Army transports that become surplus. The company estimates that 10 additional personnel will be required—returning veterans will be given preference—and more than \$3,300,000 will be required for flight equipment and ground installations.

Record Route—Delta says the authorization (AVIATION News, Aug. 27) is the largest single domestic route awarded since the Civil Aeronautics Act of 1938 was passed. It will add 1,325 miles to the company's present system, and serve 10 additional cities with populations totaling more than 4,000,000.

Four new flight patterns are planned, with new stages and flight times based on local schedules: Chicago to Miami via Asheville, 1,336 miles, 8½ hours; Chicago to Miami via Atlanta, 1,331 miles, 8½ hours; Chicago to Charleston, S. C., 813 miles, 8½ hours; Ft. Worth to Miami, 1,479 miles, 16 hours.

Export Ticket Sales

American Airlines, which flew 32,316,450 revenue passenger miles over its domestic system in July, has announced that its ticket

counters throughout the U. S. will make reservations for businesses contemplating air travel to Europe over American Export Airlines, recently acquired by AA.

Flight flies three round trips a week between New York and Foyers, Bar, via Boston. Direct connections are made to London. American's July figures as revenue passenger miles were 26 percent higher than those for July, 1944.

Airline Radar Tests Expected To Grow

Possibility that the airlines may have a chance to test other Army radar equipment than the 10 low altitude altimeters now being tried by six carriers is good, according to Aeromaritime Radio, Inc.

Some navigational equipment will "come along in time," said they. They are waiting until its military classification is reduced so it may be released to the commercial operators.

3 Planes Allocated—The radar altimeter, which is an independent of compass, affecting the precision type of altimeter, has been placed in two planes each of American Airlines, Eastern Air Lines, Trans-continental and Western Air, and United Air Lines, and one each of Northwest Airlines and Pennsylvania-Central Airlines.

Others may become available soon for testing by other lines

whether the airlines will want to purchase such equipment will depend on the tests, reports on which are not expected for some time.

Each installation of the radar altimeter weighs about 30 lbs., but air radio men are hopeful that they can be lightened. Work to this end is now under way.

TCA DC-4's Expected

Use of the DC-4 on some sections of Trans-Canada Airlines' route across Canada is in prospect for early in 1946. The exact date is indefinite, as plans to make the aircraft for commercial use at the government's Canadian Ltd., Montreal, were scrapped some months ago and materials turned over to the Royal Canadian Air Force to produce C-47 transports for Pacific operations.

Now that the need for these RCAF transports has dropped with the end of the war, it is expected that work on the commercial DC-4M, at the Canadian version it is known, will start at once.

ATA Westerns Meet

Presidents of all major airlines having western interests are being asked to attend, at Salt Lake City September 24-25, a meeting to further develop the public relations program of Air Transport Association's state relations committee.

Comparison of Five New Transport Models with the Douglas DC-3

	Tid's Present Bomber DC-3	Boring 420-10	Consolidated Vulcan 110	Convair Flight CR-10	Empire DC-3	Martin 322
Seating Capacity (1)	26	36	38-47	38	34-48	36-42
Weight Gross	35,000 lbs	36,000 lbs	32,200 lbs	40,000 lbs	39,000 lbs	34,200 lbs
Weight Empty	17,700 lbs.	18,000 lbs	22,000 lbs	27,000 lbs	20,000 lbs	25,400 lbs
Payload and Fuel	7,700 lbs.	11,000 lbs	10,200 lbs.	13,000 lbs	14,000 lbs.	16,000 lbs
Cruising Speed	185 mph	200 mph	205 mph	205 mph	210 mph	210 mph
Power Plant (2)	2 Wright R-3350 1200 H.P. each	2 P.W. R-2800 2500 H.P. each	2 P.W. R-2800 2400 H.P. each	2 Wright R-2800 2500 H.P. each	3 Allison V-1710 1600 H.P. each	2 P.W. R-2800 2500 H.P. each
Length	66'	72'	71'	73'	76'	72'
Height	17'	26'	25'	23'	26'	25'
Span	66'	66'	66'	106'	113'	66'
Wing Area	967 sq. ft.	735 sq. ft.	818 sq. ft.	875 sq. ft.	1,104 sq. ft.	650 sq. ft.
Celing	32,000'	over 30,000'	over 30,000'	over 30,000'	over 30,000'	over 30,000'

(1) Variable according to space provided for passengers.

(2) Refers to cubic inches of displacement (1200-1250 cubic inches) R = Radial; V = V-twin.

PAA Proposed In South Atlantic

Pan American Airways was recommended for an overseas route from New York to Johannesburg, Union of South Africa, by way of Leganes (Ameria), Dakar (French West Africa), Monrovia (Liberia) and Leopoldville (Belgian Congo) as a project in the Civil Aeromaritime Board, late last week by William J. Madison and James S. Keith, CAB examiners in the South Atlantic case. The examiner recommended deletion of all other organizations, including those of American Export Airlines and Pennsylvania-Central Airlines, only operating applicants in the case.

Two American witnesses said during the hearing last January (AVIATION News, Feb. 28, pg. 60) that if their company were certified to Africa by way of the Americas the carrier would abandon the Buenos Aires-Buenaventura-Bogota Atlantic route for which it had been temporarily certified.



TWA'S QUONSETS HELP TERRE HAUTE:

TWA adapted and converted two Steel-Steel Quonset huts, originally made for the Navy, as an administration building at Hulman Airport, Terre Haute, Ind., at a cost that helped the city get on the savings map in advance of air post-war plans.

that the Board had instructed him to support the proposed Northwest airport site sponsored by the Detroit Board of Commerce and favored by the airlines.

ATC Peace Plans Partially Revealed

Plan to lose about 2,350 transports, more than half of man and personnel; equipment heads for airlines.

The frequently asked question of what will happen to the Air Transport Command after the war, was partly answered last week when the War Department announced that

ATC's fleet will be reduced to 2,350 transports by January 1, 1946, from the present figure of nearly 3,000 transport planes (War Department said "large numbers" of transport aircraft, including C-45's and C-47's, being released for disposal in surplus, and a "great number . . . presumably" will go to the commercial airlines.)

For more than 210,000 military personnel will be cut to 90,000 or less within ten months. Route mileage will drop from nearly 18,000 now operated on regular flights on a world-wide basis to about 15,000, by mid-summer of next year.

The command will continue through service between the U. S. and American occupation forces overseas, but local intra-theater

services in the European and Pacific theaters will be turned over to air force units in these areas. Need for the famous route over the Hump between India and China is expected to exist no longer after an East China coast port is opened, and ATC thinks its C-53 operations will be cut in a few months to through service required by military and other government agencies and personnel personnel.

Flight between New York and Paris will continue, and the command will wait until the commercial airlines are operating the route from Paris through Rome, Athens and Cairo before it discontinues its flights there. It may operate to Berlin and Frankfurt, if these commanders so desire.

Lockheed May Announce Constellations for KLM

Lockheed will soon announce KLM Royal Dutch Airlines as a buyer of an impressive 840000s of Constellations. Negotiations were completed by Henry Verner, KLM sub-director, who has been in Southern California for nearly a month shopping for equipment to restore the company's war-hampered operations. Albert Plesman, KLM director, who recently left the West Coast, is believed completing a survey of eastern factory offerings. The party is known to have shown definite interest also in Martin's Model 222 and Convair's Model 110.

Lockheed, ALPA Lone Objectors As Industry Asks Stall Rule End

Certification for airline use of war-born transports built with landing speed exceeding present limit largely depends upon outcome of CAB hearings on proposed CAR Part 84 revision.

By MERLIN MICKEL

Elimination of stalling speed requirement for transport category aircraft is becoming almost synonymous with the Civil Aeronautics Board board aviation manufacturing and transport engineers commented last week on the proposed new Part 84 of the Civil Air Regulations.

Two voices were raised in opposition. One was that of Lockheed Aircraft Corp., the other the Air Line Pilots Association. The pilot group surprised those who had expected a strong opposing representation from the quarter, by appearing only as an observer



FIRST AIR VIEW, WICHITA:

This first aerial photo of the Wichita, Kan., airport, since before the war, was taken by the AAF. The 45,000-acre metropolitan-owned and operated field, greatly enlarged during the war, now covers more than 15,666 acres, with some runways 7,500-ft long. Dual north-south (right to left) runways are paralleled by a taxi strip, as is the northeast-southwest runway. Concrete leading north of the north-south runway is a taxiway connecting with the Cessna Aircraft Co. Boeing Aircraft plant at top left. Administration building and airline flight offices are approximately in the center of the picture.

reasons for objecting to removal of the limit, that of straight-on approach facilities were available at airports, the company would not oppose its elimination.

In the background of the discussion for and against removal of the limit was a post-war situation in which the performance of war-born transports was questioned. These found Lockheed building planes differing from the C-45 Constellation—in most the CAR stall speed requirement. Engineers say the forthcoming Lockheed Constitution, a larger plane, will come close to it.

► **Other Builders.**—While Lockheed was building and designing these ships, other companies such as Boeing and Consolidated-Vultee were working under military contract on large cargo planes where stall speed limits were not a consideration.

Thus, there was laid the basis for an economic contest if the proposed limit was retained as proposed. Planes such as Boeing's 377 and Consolidated's Model 37 will not be prevented by the restriction from being certified as airworthy for commercial use if they can meet other requirements, and can take full advantage of wartime development.

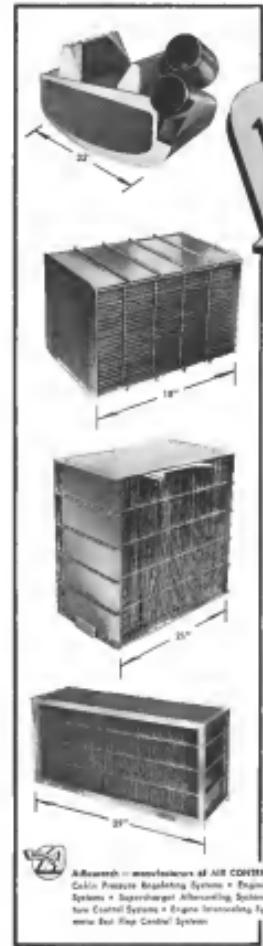
On the other hand, retention of the limit would not permit such planes, with their higher landing speed, to operate economically in commercial transport, if at all.

The Civil Aeronautics Administrator, which after long study recommended the proposed revision, (Aviation News, July 23), said that documents had shown that "one was involved in safety during the landing of an airplane than the number of miles per hour at which contact might be made with the ground during that process."

► **First Proposal.**—CAA's original proposal for a transport category, made at a meeting with the industry in 1943 under sponsorship of the then Aeronautical Chamber of Commerce, contained no limitation on landing or stalling speed for transport category airplanes.

Increases in climb requirements with one engine inoperative on a twin-engine plane, and two engine operation on a four-engine plane, were proposed by CAA. The industry generally agreed, but differed on the angle, as to 3 degrees. There was also agreement that some regulation should be added for all-engine operation.

As the end of the week drew near, the board had disposed of



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AiResearch is manufacturing supercharger intercooler units for the P-59, the B-57 and the B-52. These ships alone have logged well over a million combat hours, all trouble-free as far as AiResearch intercoolers are concerned. And AiResearch has designed and built numerous other models equally successful.

AiResearch designed the first mechanically assembled all-aluminum, corrosion-resistant intercooler successfully put on a production line basis. The tubes are jig assembled and mechanically fastened for accurate control of dimensions. This method helps make them mechanically strong enough to withstand terrific battle pressure.

Both round and flattened tube intercoolers are standard products of AiResearch. The company's latest development is a flattened-shaped tube used on the B-52, which has shown a remarkable increase in sheetiness and as much as a 40% reduction in cooling drag. Weight has been continually decreased. Intercoolers today weigh 30% less than earlier models.

These intercoolers are tested in the AiResearch Laboratories under actual conditions of heat, cold and altitude. Lab performance and actual performance have been remarkably near the same. This experience in designing, testing and manufacture is available to other aircraft manufacturers and engineers who have an interesting problem needing solution.



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discussion on stalling speed, climb requirements, and cargo category, and the talk was turning to structural and powerplant requirements.

► **Warner**—Pounding over the sections, which were expected to continue for the full week, was Dr. Edward P. Warner, CAR vice-chairman who is soon to resign to assume the presidency of the Interim Council of the Provincial Internationals Civil Air Organization.

Other Board members present were L. Welsh Pogue, chairman, Harrie Steach, and Oswald Ryan.

Groups participating in the discussion included the Aircraft Industries Association, Air Transport Association, CAA and ALPA.

Two New Examiners Added To CAB Staff

Recent additions to Civil Aviation Board's staff of trial examiners—bringing the total to 17—are J. Earl Cox and Frank Treliese.

► **Cox** went to the board from the Federal Trade Commission, where he had served as a trial examiner since 1942, preceding at the much publicized Willys-Overland jeep case among others. A graduate of Ohio Wesleyan University and the University of Chicago Law School, he practiced law in Akron, Ohio, for 25 years and, from 1936-37, served as judge of Akron's Municipal Court.

► **Treliese**, a graduate of the University of Colorado School of Law,

was assistant secretary of All American Aviation for two and a half years prior to joining CAB. He practiced law in Denver and taught at the University of Wyoming.

CAA Radar Buying Anticipated By Firm

Officers of Griffen Bros., Inc., of Los Angeles, look to CAA as a logical purchaser for the radar Ground Control Approach systems which they are developing for use on commercial airports.

The system (Aviation News, Sept. 30) can be operated with three control tower operators, who have had only three weeks training, it was stated. Company engineers expect cost of their equipment will be considerably under \$200,000 per installation, and possibly in the neighborhood of \$100,000. It is understood Army installation of GCA cost approximately \$370,000.

► **Army Use**—One hundred of the mobile GCA installations were manufactured for and used by the Army following perfection of controls by the radiation laboratory of Massachusetts Institute of Technology. Ten miles is said to be the device's successful range for initial contact with a plane seeking landing guidance.

A strong argument for surface interest in the device is the fact that no extra equipment or added weight is required in the plane,

since the whole operation is handled on the ground, with the plane crew receiving instructions over the radio.

Griffen is awaiting results of CAA tests with its military mobile installation, and expects the device may be used in the near future at 35 major domestic airports where traffic density is sufficient to make the 36 seconds landing interval claimed for the radar landing system an attraction.

Airlines Absorbing 280 Vets Weekly

Report by ATA estimates 3,000 on ~~excess~~ payrolls by year end—~~one~~ fourth former employees.

The Air Transport Association estimates that about 280 veterans being hired or retained by the airlines each week, more than 2,000 each personnel will be on the carriers' payrolls by the end of this month. More than a fourth of these will be former airline employees.

The transcontinental project, in which the four coast-to-coast operators and Pan American Airways are carrying troops across country under Army contract at the rate of 23,000 a month, has accounted for about 1,600 jobs, of which the majority are being filled by veterans. This includes 750 additional captains and co-pilots and 850 skilled mechanics.

► **Special Training**—The returned veterans are receiving special courses from many of the airlines in flying, operations, maintenance, communications, familiarization with new company policies, and other supplements to whatever aviation training they received in service. Rehabilitation courses for the physically handicapped are instituted. Eastern Air Lines has said it will be able to employ up to 1,000 veterans with amputations in such jobs as reservation clerks, ticket sellers, mechanics, weather and instrument experts and bookkeepers.

Of 27 pilots recently hired by Northwest Airlines, 22 were veterans. Pennsylvania-Central Airlines has 45 AAP pilots on air regular flights. Braniff Airways started September with more than 20 percent of its male personnel listed as veterans of World War II.

In a summary of the personnel situation, ATA said recently that the airlines probably could hire co-pilots from among returning

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For detailed information, write to Kellett Aircraft Corporation, Department ANSC-2, Upper Darby (Philadelphia), Pa. An analysis of the general nature of your present or proposed design or production problem would enable us to recommend the possible ways in which Kellett may prove helpful in solving it.



KELLETT



Radar Trailer for Airports: Photo shows interior of the Griffen radar landing control trailer, part of a mobile and for use with, or supplementary to, present airport control equipment.



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P-156, AVIATION NEWS
220 N. Michigan Ave., Chicago 11, IL

Colonial Favored In Canadian Case

Examination requested by CAB as to services granted has new line direct through Washington-Ottawa-Montreal-Ottawa service.

Highlight of last week's decision by the Civil Aeronautics Board in an independent Canadian case is the selection of Colonial Airlines to provide new through service between Washington, D. C., and Montreal and Ottawa. Can-

ada also authorized extension of Colonial's YAM 1 from Binghamton, N. Y., to Ottawa via Malone, N. Y., to give direct service between New York and Ottawa.

Bi-lateral Agreement—By taking this action, the Board sanctioned operations over these of six additional routes allotted the U. S. in a bilateral agreement, Feb. 17, with Canada and, at the same time, reversed recommendations of Examiner William J. Maddux and H. Research Spengler against the Washington-Ottawa-Montreal route (AVIATION NEWS, Feb. 28).

The Board felt that its examiner should have considered the desirability of direct air service be-

tween the capitals of the two countries, especially since this does not now exist and "air facilities are slow and circuitous." Also cited was "an unusual lack of transportation facilities for reasonably direct service in a North-South direction through the area generally."

In selecting Colonial's proposal for Washington-Ottawa-Montreal service over those of American Airlines and Eastern Air Lines, CAB pointed to Colonial's entire dependency on its New York-Montréal route and the diversion of traffic and revenues which might result if either of the other carriers were chosen. Colonial, the Board said, will have opportunity "to spread part of its existing costs over the new route operation and thereby reduce its present per-mile costs."

In the proceeding, the Board: Granted PCA authority to serve Elkhorn-Corning and Rochester, N. Y., on AM 24, to meet the former's need for connections with cities to the South and to provide improved, direct air service between Rochester and Washington.

Granted American authority to serve Khoka-Corning and Huntington, N. Y., on AM 7, to meet the former's need for New York, Buffalo, Syracuse and Rochester service and the latter's need for direct New York and Buffalo-Rochester service.

Deferred American's application for extension of AMT from Wilkes-Barre to Philadelphia pending submission of Middle Atlantic Case.

Dismissed applications of Hyline Flying Service and Union Airways.

Denied all other applications.

230 Army C-54's Seen Surplus Soon

Price set by SPD for "B" version quoted as \$300,000 with 50 percent reduction for conversion.

Domestic and foreign airlines expect to have approximately 230 surplus C-54's, four-engine Army version of the commercial Douglas DC-4, from which to make ac-

Aircraft Structural Enclosure

Want to build an enclosed aircraft enclosure, made of aircraft aluminum and aircraft structural components. Enclosure to be used for aircraft storage or aircraft parts storage. Address enclosed.

P-156, AVIATION NEWS
220 N. Michigan Ave., Chicago 11, IL



Colossus of the crossroads

FARMERS want planes, need planes. They have the money to buy planes. The planes are out there, waiting for who can look at them uninterested in the parity—or some years. For in this has been given one of the wheat fields a government research station. It takes a government grant of \$600,000 to start a new farm, and parity for at least two years after the cessation of hostilities.

To the farmer, parity gives money parity, parity gives parity for his products. To America, parity gives parity over the world over to the farmer.

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And you can bank on this millions of the farmer's new wealth will go into investment in the businesslike future they face as entrepreneurs. Their business need not be limited, even for a day, to scratch the way to power in the field. They can go into power in the field, and the way to power for their products grows with each month. History says the world over looks to America's agriculture.

World events are not the farmer's concern. He has No. 1 concern—and industry's No. 1 prospect. Farm income has soared to nearly 25 billions, and farmers' savings, an already enormous sum, have now reached 14 billions!

And you can bank on this millions of

A recent survey in Kansas, just as an example, reveals that 40% of every \$100 from farmers went to buy aircraft, and only 15% of every \$100,000 city families.

Can any aircraft company afford to overlook the farmer—or his preferred magazine?

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DC-7 Construction Hangs In Balance

Only order for 106-passenger ship believed headed for cancellation unless drastic engineering changes are made.

Unless drastic engineering changes are made in the design, Douglas Aircraft Company's proposed 106-passenger DC-7 probably will not be built.

On the basis of original engineering specifications for the airplane, Pan American World Airways, so far the only prospective customer, with a conditional forty million dollar order for 16, is now expected to make use of its cancellation escape clause.

Re-Design—Whether Douglas will launch a re-designing of the plane to meet the competition of big planes more recently designed by other manufacturers for sale to Pan American and other long-range air carriers, is problematical.

Pan American definitely is interested in having equipment which will permit it to meet a three cents per passenger mile fare objective.

The original design of the DC-7, and Douglas officials say have announced no modifications, showed a transport capable of an operating cost approaching 18 cents per passenger mile at a range of 3,600-3,700 miles based upon a 85 percent load factor and including an 85 percent overhead allowance.

Change Economy—At a range of 1,000 miles the DC-7 would appear

CHIEF AIRLINE ENGINEER
Working with all phases of airline operations, including maintenance, engineering, planning and development, and supervising buildings and facilities. Must have extensive airline experience.
P-182, Aviation News
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P-157, AVIATION NEWS
330 West 42nd Street

to be more practical, although unsuited to Pan American needs, in showing an operating overall cost of 1.25 cents per passenger mile.

Douglas has used extreme caution in implying that its recently test-flown Army C-94 Glaucomaster transport is a military version of the proposed DC-7 while deeming, at the same time, to say definitely when and if a DC-7 will go into production.

So far, the company appears to be content with the Army's existing order for 14 Globemaster, now under production at the Douglas Long Beach, Calif., plant.

PCA Field Offices Decentralizing Hiring

PCA has established a Department of Personnel Administration in a move to decentralize personnel functions and hire and indoctrinate new employees at the field.

Where new employees formerly were brought to the Inc.'s headquarters at Washington, to be recruited and indoctrinated, they now do so at its existing supervisory offices at Washington, New York, Newark, Pittsburgh, Cleveland, Detroit and Chicago.

Believed Permanent—Wartime transportation and housing difficulties were responsible for the decentralization, but PCA officials expect it to be retained.

CAB SCHEDULE

Sept. 10. Exhibit schedule for an exhibition application for exhibition at a meeting of the International Society of Radiotelephony.

Sept. 11. Display at the Professional Fair in the Auditorium, Atlanta, Georgia.

Sept. 12. Installation of radiotelephony equipment at the General Electric Research Laboratory, Schenectady, New York.

Sept. 13. Meeting date in Washington, D. C., for the International Society of Radiotelephony.

Sept. 14. Installation of radiotelephony equipment at the General Electric Research Laboratory, Schenectady, New York.

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Dec. 31. Installation of radiotelephony equipment at the General Electric Research Laboratory, Schenectady, New York.

SHORTLINES

Northwest Airlines is looking forward to development of a jetliner fleet sometime in the future. All Airpart facilities and operations at Minneapolis and St. Paul, Minn., are being expanded.

The Canadian Air Transport Board, Ottawa, has issued a 36-page directive on tariff rules, the third issued by the board since it started early this year. For example, the new rules require that all transborder flights between Canada and the United States be conducted at night.

United Air Lines reports that 11 major league ball clubs and numerous minor league teams have signed voluntary travel contracts with UAL for the 1945 season.

Northwest Airlines has received a special award citation from Financial News, which described the carrier's 1944 annual report as a "distinguished achievement in annual reporting."

United Air Lines is spending more than \$800,000 to modernize and expand its fleet of 100 aircraft in 11 cities, with new aircraft to be delivered in 1945.

New offices are being built in 11 cities, with remodeling underway at 14 more. Addition of two daily round trips between Chicago and San Francisco this month was

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Keeping Non-Scheduled Aviation Alive

During the last 24 hours before the deadline last Tuesday, telegrams and letters reached the Civil Aeronautics Board urging a hearing and protesting either all or parts of the proposals made by examiners for economic regulation of non-scheduled aviation. Considering the long-range impact of the question, and the thousands of fixed base operators there are in this country, the response from individuals was meager. But the last minute awakening of aviation's leading associations was encouraging. Fourteen filed comments. Only the Air Transport Association approved the examiners' report at its

This response is an oral argument. The next step is a strong, clear, convincing presentation for the CAB incorporating the latest developments prepared by a united non-scheduled aviation industry. All affected groups could well consider a joint plan-

ning session to prepare a program which will be spared pity sparing from within this young, rapidly growing industry.

Combined, coordinated efforts in proportion to the importance of the subject are in order from ATB, UPMA, NATA, Administrator Wright's non-scheduled Aviation Advisory Committee, Personal Aircraft Council, Feder Airlines Association, ACOPA, the Civil Aviation Legislative Council, American Association of Airport Executives, ADMA, Aviation Insurance Group, NAA, NASAQ. Individual operators who fail to write the Board their comments, meanwhile, are strutting their responsibility.

If non-scheduled aviation fails to make the strongest possible case for itself in this proceeding it can place the blame only on its own placid ignorance of a few vital facts of life and how to keep it.

Nebraska Shows Us How

WHILE COMMUNITIES IN OTHER MORE POPULOUS STATES sit back complacently awaiting their federal funds and only the most elaborate, costly airports or more at all, let's consider Nebraska. Realizing that the utility of the airplane depends entirely on the number of airfields, Nebraskans have made remarkable progress recently in establishing landing areas. Most of the state's fields have and runways. Many still call for that type on present improvements. Cheap equipment can come later when business justifies it. Meanwhile, a score or more communities will have set up adequate bases for training, business and pleasure.

From a pre-war high of 55 registered airports in 1941, Nebraska's total dropped to 12 two years ago. As security restrictions gradually relaxed the total reached 45 at the first of this year. Today it is 52. The Nebraska State Department of Aeronautics believes the number will double in the next year.

Eighteen of the new new registered are private.

The problem for a score of other Nebraska cities is not so much for the populations of the communities as much as for their progress. For example, how many towns of comparable size can boast projects such as these:

Falls City, with about 8,000 population, has voted a \$30,000 bond issue almost 10 to 1 for a new airport. Nebraska communities will provide aid not to exceed \$15,000. Lexington, with 6,000 citizens, voted 2 to 1 to invest \$20,000 in a port, and is purchasing 150 acres. McCook, 6,000 population, has purchased land and is building an airport on 155 acres of the property. Broken Bow, 3,000 strong, voted \$16,000 for development of a 150-acre field. Holdrege, 3,300, is receiving state help to develop a field on 325 acres purchased. Gering, with 3,000 citizens, is acquiring 150 acres after citizens passed a \$14,000 bond issue by a 3 to 1 vote.

The Aeronautics Department has conducted a survey for Hartington, population 3,800, and a local group is working on a plan to acquire land for a

new airport. The features of these airports are very contrast. Nebraska's personal aviation may well lack the features of larger airports of other states, perhaps, but the very existence of a larger number of adequate landing fields will put the state farther ahead seismically, and bring aviation closer to the people, than in most other states we can name at the moment.

Dr. Warner Moves Up

DR. EDWARD P. WARREN plans to leave Washington this week for Marquette, where he will assume the presidency of the Province Internationale Civil Aviation Organization. His election at the Icône banner yet bestowed in a distinguished career. It is ample evidence of the profound respect of the international world for his abilities. His services to aviation and to the Civil Aeronautics Board while he served as member and more recently as its vice-chairman have been prodigious. As he begins this new chapter, in which he can contribute even more effectively toward a better world, he carries with him the best wishes of his countrymen.

ROBERT H. WOOD



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Dr. Moss, A. L. Berger, and W. A. Reeves examine a G-E turbosupercharger—forerunner of the powerful gas turbine for aircraft.



Popular exhibit was display of G-E instruments specially developed for aircraft powered by gas turbines.



E. S. Thompson and R. G. Standwick, G-E engineers associated with development of G-E gas turbines, show precision products visitors.

G-E engineers discuss fuel-system equipment.

MILESTONE at SWAMPSOTT

LEADING JET TECHNICIANS HOLD HISTORIC MEETING TO DISCUSS PROGRESS

Jointly sponsored by the Army Air Forces Air Technical Service Command and General Electric, a three-day closed session of American and English engineers at Swampscott, Mass., revealed common problems and new developments in the science of jet propulsion. Technicians of leading aircraft and aircraft-engine manufacturers discussed performance characteristics of G-E aircraft gas turbines for jet propulsion and propeller drive, combustion development, metallurgical advancements, air-compressor design, jet-plane design, and the intricate sequence of tests that gas turbines must undergo from factory to flight.

In what was probably the first such meeting ever held, it was generally felt that the aircraft gas turbine will take a leading part in the advance of commercial as well as military aviation—and General Electric is proud to be associated with this work. The Company's vast resources in trained personnel and equipment have ably fitted it to play an increasingly important role in both the development and manufacture of aircraft gas turbines for jet propulsion and for propeller drive. *Apparatus Dept., General Electric Company, Schenectady 5, N. Y.*



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